

## Conclusions Concerning Review of Hydrology Data for Recreation Impacts (see attached tables 1 and 2)

### Reservoirs

- Generalizing results is difficult – results differ substantially by reservoir
- At Lake Oroville, the No Storage options under Alternatives 2 and 3 would severely impact recreation quality conditions at Lake Oroville (under the no storage options, the frequency in which undesirable lake level conditions for recreation during the peak season [May-September] would increase substantially compared to No Action conditions)
- At San Luis, recreation quality conditions would improve substantially under Alternative 3
- At Lake Don Pedro, the alternatives appear to have little or no affect on recreation quality conditions
- At Shasta Lake, Alternative 3 (all cases) would have a substantially negative effect on recreation quality conditions (the number of months in which undesirable lake level conditions for recreation would increase from about 7% of the time to between 11 to 15% of the peak summer months)
- From a regional perspective, Sacto Valley appears to be a net loser and San Joaquin Valley a net winner; the addition of recreation capacity at a new storage facility would offset some of the impacts at existing reservoirs; locally-significant impacts (around the existing reservoirs) would still occur, but could be offset by locating the new reservoir nearby (especially near Lake Oroville)

### Rivers

(still need data [graphics with monthly data] from Param for Cases 706, 715, 709, and 717 [with storage cases] for all affected sites)

- For Sacramento River, substantial increase in flows in August, which is an important month for recreation; however, unlikely to affect recreation quality conditions because a wide range in flow conditions supports recreation activities (see support data for Table 1)
- For Feather River substantial increase in flows in June and July under No Storage conditions and substantial decrease in August and September – implications for recreation quality unknown at this time
- For American River, moderate decreases in flows in June under No Storage conditions would be more than offset by increases (beneficial impacts) on flows occurring in July and August

No monthly data has been provided as yet for the San Joaquin River.

# TABLE 2. Comparison of Average Monthly Values

Average Monthly Values (Lake Elevation and TAF River Releases)

Shasta	MAY	JUNE	JULY	AUG	SEPT
674	1044	1034	1016	1000	993
675	1044	1035	1016	1000	992
703	1044	1034	1015	998	991
714	1040	1031	1011	990	983
708	1038	1029	1009	987	979
716	1037	1028	1007	985	977

Oroville	MAY	JUNE	JULY	AUG	SEPT
674	860	846	821	792	785
675	857	842	814	781	772
703	856	842	811	773	766
714	845	817	773	747	744
708	842	811	772	745	741
716	841	811	772	745	740

Folsom	MAY	JUNE	JULY	AUG	SEPT
674	443	435	424	416	410
675	442	434	423	414	408
703	442	434	423	412	406
714	441	434	420	406	402
708	440	433	419	404	398
716	439	432	418	403	396

San Luis	MAY	JUNE	JULY	AUG	SEPT
674	493	453	424	402	410
675	485	456	416	394	399
703	492	458	418	400	404
714	513	499	474	442	440
708	514	504	475	442	440
716	514	504	475	442	440

New Don F	MAY	JUNE	JULY	AUG	SEPT
674	782	792	783	769	760
675	779	789	779	765	755
703	779	789	780	765	755
714	779	789	780	765	755
708	779	789	780	765	755
716	779	789	780	765	755

Sacto Rive	MAY	JUNE	JULY	AUG	SEPT
674	438	388	405	313	382
675	428	372	394	306	362
703	425	365	399	321	356
714	421	353	409	354	353
708	419	354	410	376	358
716	417	355	411	387	364

Feather Ri	MAY	JUNE	JULY	AUG	SEPT
674	217	262	283	294	115
675	217	260	317	335	116
703	216	247	363	370	110
714	217	417	437	215	69
708	216	453	379	217	79
716	216	448	378	223	84

American I	MAY	JUNE	JULY	AUG	SEPT
674	222	218	152	132	128
675	216	206	139	116	113
703	216	201	141	126	108
714	217	194	150	143	106
708	216	194	153	154	116
716	214	193	153	157	116

No Action Compared to Existing Conditions  
Alternative Relative to No-Action

0.00%	0.10%	0.00%	0.00%	-0.10%
0.00%	-0.10%	-0.10%	-0.20%	-0.10%
-0.38%	-0.39%	-0.49%	-1.00%	-0.91%
-0.57%	-0.58%	-0.69%	-1.30%	-1.31%
-0.67%	-0.68%	-0.89%	-1.50%	-1.51%

-0.36%	-0.47%	-0.85%	-1.39%	-1.66%
-0.12%	0.00%	-0.37%	-1.02%	-0.78%
-1.40%	-2.97%	-5.04%	-4.35%	-3.63%
-1.75%	-3.68%	-5.16%	-4.61%	-4.02%
-1.87%	-3.68%	-5.16%	-4.61%	-4.15%

-0.23%	-0.23%	-0.24%	-0.48%	-0.49%
0.00%	0.00%	0.00%	-0.48%	-0.49%
-0.23%	0.00%	-0.71%	-1.93%	-1.47%
-0.45%	-0.23%	-0.95%	-2.42%	-2.45%
-0.68%	-0.46%	-1.18%	-2.66%	-2.94%

-1.62%	0.66%	-1.89%	-1.99%	-2.68%
1.44%	0.44%	0.48%	1.52%	1.25%
5.77%	9.43%	13.94%	12.18%	10.28%
5.98%	10.53%	14.18%	12.18%	10.28%
5.98%	10.53%	14.18%	12.18%	10.28%

-0.38%	-0.38%	-0.51%	-0.52%	-0.66%
0.00%	0.00%	0.13%	0.00%	0.00%
0.00%	0.00%	0.13%	0.00%	0.00%
0.00%	0.00%	0.13%	0.00%	0.00%
0.00%	0.00%	0.13%	0.00%	0.00%

-2.28%	-4.12%	-2.72%	-2.24%	-5.24%
-0.70%	-1.88%	1.27%	4.90%	-1.66%
-1.64%	-5.11%	3.81%	15.69%	-2.49%
-2.10%	-4.84%	4.06%	22.88%	-1.10%
-2.57%	-4.57%	4.31%	26.47%	0.55%

0.00%	0.76%	12.01%	13.95%	0.87%
-0.46%	-5.00%	14.51%	10.45%	-5.17%
0.00%	60.38%	37.85%	-35.82%	-40.52%
-0.46%	74.23%	19.56%	-35.22%	-31.90%
-0.46%	72.31%	19.24%	-33.43%	-27.59%

-2.70%	-5.50%	-8.55%	-12.12%	-11.72%
0.00%	-2.43%	1.44%	8.62%	-4.42%
0.46%	-5.83%	7.91%	23.28%	-6.19%
0.00%	-5.83%	10.07%	32.76%	2.65%
-0.93%	-6.31%	10.07%	35.34%	2.65%